

Patent Claims

1. An interior fitting (16) for a vehicle, in particular for a motor vehicle, comprising a support body (1) which is provided, at least in some regions, with a sensor-functional planar structure (2) and with a covering layer (3) on the side facing the interior, it being possible for different output signals to be generated by means of the planar structure (2) as a function of the location of action thereupon, characterized in that the covering layer (3) is of flexible design and completely covers the sensor-functional planar structure (2).
- 15 2. The interior fitting (16) as claimed in claim 1, characterized in that the planar structure (2) is of pressure-sensitive design.
- 20 3. The interior fitting (16) as claimed in claim 1 or 2, characterized in that the covering layer (3) is designed as a textile planar structure (2), in particular as a woven fabric.
- 25 4. The interior fitting (16) as claimed in claim 1 or 2, characterized in that the covering layer (3) consists of a leather or artificial leather or a film.
- 30 5. The interior fitting (16) as claimed in one of the preceding claims, characterized in that the covering layer (3) is arranged directly on the sensor-functional planar structure (2).
- 35 6. The interior fitting (16) as claimed in one of the preceding claims, characterized in that at least one compressible intermediate layer (4), in particular of a soft foam plastic, is arranged between the covering layer (3) and the sensor-functional planar structure

(2).

7. The interior fitting (16) as claimed in one of the preceding claims, characterized in that at least one 5 compressible intermediate layer (4), in particular of a soft foam plastic, is arranged between the support body (1) and the sensor-functional planar structure (2).

8. The interior fitting (16) as claimed in claim 6 or 10, characterized in that force-transmitting molded pieces (5) of a stiff or semi-stiff material are arranged in the compressible intermediate layer (4).

9. The interior fitting (16) as claimed in one of the 15 preceding claims, characterized in that the interior fitting (16) has means on the side facing the interior for the visual orientation of the operator.

10. The interior fitting (16) as claimed in one of the 20 preceding claims, in particular as claimed in claim 9, characterized in that an illuminating device is arranged below the covering layer (3).

11. The interior fitting (16) as claimed in claim 10, 25 characterized in that the illuminating device is of planar design and is preferably arranged between the support body (1) and the covering layer (3), in particular directly below the sensor-functional planar structure (2).

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12. The interior fitting (16) as claimed in claim 11, characterized in that the illuminating device comprises an electroluminescent film, an OLED or polyLED.

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13. The interior fitting (16) as claimed in one of claims 9 to 12, characterized in that the means for the visual orientation comprise images which can be

projected from the vehicle interior onto the covering layer (3).

14. The interior fitting (16) as claimed in one of
5 claims 9 to 13, characterized in that the means for the
visual orientation comprises optical waveguides
arranged in the covering layer (3) and/or in the
sensor-functional planar structure (2).

10 15. The interior fitting (16) as claimed in one of the
preceding claims, characterized in that the interior
fitting has means for the tactile orientation of the
operator.

15 16. The interior fitting (16) as claimed in claim 15,
characterized in that the means comprise a structured
molded part (12) of a stiff or semi-stiff material.

17. The interior fitting (16) as claimed in claim 16,
20 characterized in that the structured molded part (12)
has recesses (13).

18. The interior fitting (16) as claimed in one of
claims 15 to 17, characterized in that the means for
25 the tactile orientation have changeable structures in
the interior fitting.

19. The interior fitting (16) as claimed in one of
claims 15 to 18, characterized in that the means for
30 the tactile orientation comprise regions of different
surface temperature.

20. The interior fitting (16) for a vehicle, in
particular as claimed in one of the preceding claims,
35 characterized in that the interior fitting (16) has an
operating panel (160), the operating panel (160) having
a central region (161) and a plurality of peripheral

regions (162, 163).

21. The interior fitting (16) as claimed in claim 20, characterized in that the central region (161) of the 5 operating panel (160) is round.

22. The interior fitting (16) as claimed in claim 20 or 21, characterized in that the peripheral regions (162, 163) of the operating panel (160) are arranged in 10 the manner of sectors around the central region (161).

23. The interior fitting (16) as claimed in claim 20, 21 or 22, characterized in that the peripheral regions (162, 163) of the operating panel (160) completely 15 surround the central region (161) of the operating panel (160).

24. The interior fitting (16) as claimed in one of 20 claims 20 to 23, characterized in that the interior fitting (16) is assigned a display device (30), with it being possible for information items to be displayed on the display device (30) as a function of an operating mode.

25 25. The interior fitting (16) as claimed in claim 24, characterized in that different vehicle components can be operated by means of the operating panel (160) as a function of the operating mode.

30 26. The interior fitting (16) as claimed in one of claims 20 to 25, characterized in that the operating mode can be changed as a function of the actuation of the central region (161) and/or of the peripheral regions (162, 163) of the operating panel (160), 35 preferably as a function of the actuation of the peripheral regions (162, 163) of the operating panel (160).

27. The interior fitting (16) as claimed in one of claims 20 to 26, characterized in that a different operating mode is assigned the operation of a different vehicle component, in particular the air-conditioning control, the ventilation, a car radio, a navigation device, a car telephone, an audio configuration system, a fuel information system and/or a mobility information system.

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28. The interior fitting (16) as claimed in one of claims 20 to 27, characterized in that, when an operating mode is set, the operation of the vehicle component assigned to the set operating mode takes place as a function of the actuation of the central region (161) and/or of the peripheral regions (162, 163) of the operating panel (160), preferably as a function of the actuation of the central region (161) of the operating panel (160).

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29. The interior fitting (16) as claimed in one of claims 20 to 28, characterized in that the actuation of the central region (161) enables a list selection, which can be displayed on the display device (30), of functions which can be carried out and/or of information items which can be displayed.

30. The interior fitting (16) as claimed in one of claims 20 to 29, characterized in that the actuation of the central region (161) enables a map excerpt, which can be displayed on the display device (30) to be displaced by a directional actuation and to be changed in size (zoomed in/out) by a rotary actuation, the map excerpt being in particular the single map excerpt displayed on the display device (30).

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31. The interior fitting (16) as claimed in one of

claims 20 to 30, characterized in that the actuation of the central region (161) enables a configuration, which can be displayed on the display device (30), of the audio configuration system to be changed.

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32. A method for operating vehicles, in particular motor vehicles, with the use of an interior fitting (16) as claimed in one of the preceding claims, characterized in that a continuous adjustment of that component of the vehicle which is to be operated is associated with the direction (x direction, y direction) and/or speed (dx/dt, dy/dt) of a continuous displacement of the location of action on the sensor-functional planar structure (2).

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33. The method as claimed in claim 32, characterized in that an adjustment of that component of the vehicle which is to be operated is associated with the pressure (z direction) which is exerted on the sensor-functional planar structure (2).

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34. The method as claimed in claim 33, characterized in that a continuous adjustment of that component of the vehicle which is to be operated is associated with a continuous change of the pressure.

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35. A method for operating vehicles, in particular motor vehicles, in particular as claimed in one of claims 32 to 34, characterized in that an operating panel (160) is assigned a display device (30), an operating panel (160) and a display device (30) being provided.

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36. A method for the production of an interior fitting (16) as claimed in one of claims 1 to 31, characterized by the following steps:

- producing a support body (1)

- laminating the sensor-functional planar structure (2) onto the support body (1)
- laminating the covering layer (3) onto the sensor-functional planar structure (2) and optionally onto 5 exposed regions of the support body (1).

37. A method for the production of an interior fitting (16) as claimed in one of claims 1 to 31, characterized by the following steps:

- 10 - producing a support body (1)
- forming a sandwich from the covering layer (3) and the sensor-functional planar structure (2)
- laminating the sandwich onto the support body (1)..

15 38. The method as claimed in claim 37, characterized in that the covering layer (3) is of gas-permeable design and the sensor-functional planar structure (2) is positioned in relation thereto by application of a negative pressure on that surface of the covering layer 20 (3) which is on the side facing the interior.

39. A method for the production of an interior fitting (16) as claimed in one of claims 6 to 31, characterized by the following steps:

- 25 - producing a support body (1)
- placing the covering layer (3) and the sensor-functional planar structure (2) into a die
- filling the interior space between covering layer (3) and sensor-functional planar structure (2) with foam
- 30 - laminating the composite produced in this manner onto the support body (1).

40. The method as claimed in claim 39, characterized in that the covering layer (3) is plastically preformed 35 before being placed into the die.